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Transmitted herewith for filing is the patent application of:

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and Hiroaki SHINODA

For: **PROMOTION METHOD AND SYSTEM**

Enclosed are:

- (X) 35 pages of specification, including 25 claims and an abstract.
- (X) an executed oath or declaration, with power of attorney.
- ( ) an unexecuted oath or declaration, with power of attorney.
- ( )    sheet(s) of informal drawing(s).
- (X) 16 sheet(s) of formal drawing(s).
- (X) Assignment(s) of the invention to Kabushiki Kaisha Nippon Conlux
- (X) Assignment Form Cover Sheet.
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Fee Calculation For Claims As Filed

- |                              |           |   |    |   |          |   |            |    |                   |
|------------------------------|-----------|---|----|---|----------|---|------------|----|-------------------|
| a) Basic Fee                 |           |   |    |   |          |   |            |    | \$ 690.00         |
| b) Independent Claims        | <u>2</u>  | - | 3  | = | <u>0</u> | x | \$ 78.00 = | \$ | <u>          </u> |
| c) Total Claims              | <u>25</u> | - | 20 | = | <u>5</u> | x | \$ 18.00 = | \$ | <u>90.00</u>      |
| d) Multiple Dependent Claims |           |   |    |   |          |   | \$260.00 = | \$ | <u>          </u> |
- ( ) Small Entity status claimed, reducing Filing Fee by half to \$
  - (X) A check in the amount of \$820.00 to cover the filing and assignment recordal fee is enclosed.
  - ( ) Charge \$            to Deposit Account No. 23-0920.
  - (X) Other Information Disclosure Statement; Form PTO-1449; Cited Refs.; 2 Japanese Priority Documents.
  - (X) The Commissioner is hereby authorized to charge any additional fees which may be required to this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 23-0920. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 23-0920.

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As described above, when issuing points by affixing seals to merchandise, substantial labor is demanded of both the vendor and the purchaser for processing of points. When adding points for cards possessed by purchasers, it is difficult for vending machines to issue points, and it is also difficult to accommodate nation-wide promotions sponsored by the manufacturer of the above merchandise.

In either of these cases, considerable labor is required of the promotion sponsor for the recovery and totaling of points.

### SUMMARY OF THE INVENTION

The object of this invention is to provide a promotion method and system which facilitate the issuing, collection, recovery, and totaling of points.

In order to achieve the above object, the promotion method of this invention is a promotion method, in which merchandise sales are promoted by issuing points upon sale of merchandise; wherein point information related to prescribed points is presented to a user at a time of merchandise sales; said user transmits to a center device said presented point information, together with identification information for said user; said center device stores and manages points corresponding to said transmitted point information for said user; and, a prescribed service is offered to said user based on the points stored and managed in correspondence to said user.

Here the presentation of the above point information can be performed by a point issuing device provided in the equipment performing sales of the merchandise. The point information comprises a module code related to the point issuing device and a secret code





The above center device manages the user based on identification information for the user transmitted by the user.

The center device permits reading of point information which is stored and managed for a user in response to a request from the user.

The promotion system of this invention is a promotion system for the promotion of sales of merchandise through the issue of points upon the sale of merchandise, comprising point issuing means, provided in an equipment for sale of the merchandise, which presents to a user of the system point information showing prescribed points upon purchase of merchandise; a center device which stores and manages, for the user, points corresponding to the point information presented by the point issuing means; communication means which transmits to the center device the point information presented by the point issuing means, together with identification information for the user; update means, provided in the center device, which decodes the point information transmitted from the communication means and updates the points stored and managed for the user with the points corresponding to the point information; and service providing means, which provides to the user a prescribed service based on the points stored and managed for the user.

The point information comprises a module code which identifies the point issuing means and a secret code related to the points, and among the module code and the secret code, the point issuing means encrypts at least the secret code before presenting to the user.

The point issuing means provides to the user the point information by displaying the point information on a display unit provided in the point issuing means.

The point issuing means provides to the user the point information by printing and outputting the point information on a prescribed form, using printing means provided in the point issuing means.

The point issuing means comprises input means for input, to the communication means, of the point information through communication between the point issuing means and the communication means.

The communication means comprises a portable telephone set carried by the user, and the input means uses either wire communication, wireless communication, infrared communication, or audio communication for input of the point information.

The secret code comprises, at least, a point issue number, and the center device decides duplicate use of the point information based on the point issue number comprised in the point information.

The center device is provided with an equipment database to store and manage a state of at least one of the point issuing means and the equipment selling the merchandise in which the point issuing means is provided, in correspondence with the module code.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a block diagram showing in summary the configuration of a promotion system in which this invention is applied to a vending machine;

Fig. 2 is a block diagram of the configuration of a vending machine according to a first embodiment of this invention;

Fig. 3 is a diagram explaining the point information in the promotion system of Fig. 1;

Fig. 4 is a block diagram depicting the center device of Fig. 1;

Fig. 5 is a flowchart showing the flow of operation of the center device of Fig. 1;

Fig. 6 is a flowchart showing the flow of processing of a vending machine when point information display is limited;

Fig. 7 is a block diagram depicting the configuration of a vending machine in a second embodiment of this invention;

Fig. 8 is a block diagram depicting the configuration of a vending machine in a third embodiment of this invention;

Fig. 9 is a system configuration diagram showing one example of the configuration of a promotion system of this invention;

Fig. 10 is a flowchart showing the details of processing of the point issuing devices shown in Fig. 9;

Fig. 11 is a flowchart showing the processing of a portable telephone set when transmitting to the data center point information, output by infrared beam from a point issuing device, and input using an infrared reception function of the portable telephone set;

Fig. 12 is a flowchart showing the processing of a portable telephone set when transmitting to the data center point information, displayed on the display of a point issuing device, and input to the portable telephone set;

Fig. 13 is a flowchart showing the processing of a personal computer when inputting to the personal computer point information, based on information printed on a sales receipt output from a point issuing device, for transmission to the data center;

Fig. 14 is a flowchart showing processing at the data center after receiving point information;

Fig. 15 is a diagram depicting one example of a point seal according to a fourth embodiment of this invention.



Fig. 16 is a diagram showing in summary the configuration of the promotion system in the fourth embodiment of this invention.

### DESCRIPTION OF THE PREFERRED EMBODIMENTS

Below, embodiments of the promotion method and system of this invention are explained in detail, referring to the drawings.

Fig. 1 is a block diagram showing in summary the configuration of a promotion system in which this invention is applied to a vending machine.

In Fig. 1, the promotion system comprises a vending machine 1 which sells merchandise and issues points, a portable telephone set 2, and a center device 3 which manages points.

The vending machine 1 issues point information according to the type and number of merchandise items sold. The purchaser uses a portable telephone set 2, possessed by the purchaser, to transmit to the center device 3 the point information issued.

At the center device 3, after confirming the authenticity of the point information received, the point information is added and managed.

A detailed explanation is given below, but transmission of point information need not necessarily be performed using a portable telephone set 2; transmission from an ordinary telephone set, or from a computer or other device connected to the Internet or similar, is also possible.

First, the configuration of the vending machine 1 shown in Fig. 1 is explained.

Fig. 2 is a block diagram of the configuration of the vending machine shown in Fig. 1.

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adds the number of points of the received point information to the number of points stored in the point storing unit 36.

The network processing unit 31, data processing unit 32, and audio processing unit 33 need not all be provided; when constraints are imposed on the method of transmission of point information, a part of these can be omitted. For example, if the system is arranged such that point information can be transmitted only from a portable telephone set 2 connected to the Internet, then the data processing unit 32 and audio processing unit 33 can be omitted.

Here the operation of the center device 3 is explained, referring to Fig. 5.

Fig. 5 is a flowchart showing the flow of operation of the center device 3.

In the center device 3, when point information is obtained from either the network processing unit 31, the data processing unit 32, or the audio processing unit 33, the point verification unit 34 refers to the point storing unit 36 to decide whether the registration name received together with the point information (the name, freely registered, of the transmitter of the point information) exists (step 101), and if it does exist (YES in step 101), verifies that the point information is genuine (step 102).

If as a result the point information is found to be genuine (YES in step 102), processing is performed to verify that the points are unused (step 103).

If as a result the point information is found to be unused (YES in step 103), the point processing unit 35 adds a number of points to the number of points for the registration name stored in the point storing unit 36, based on the received point information (step 104), and processing is terminated.

If the registration name does not exist (NO in step 101), or if the points are inauthentic (NO in step 102), or if the points have been used a plurality of times NO in step 103), then





As shown in Fig. 7, the vending machine 1 comprises a main control unit 411, point information generation unit 412, point information printing unit 413, keyboard terminal unit 414, coin processing unit 415, bill processing unit 416, merchandise conveyor unit 417, and columns 418 (from 418-1 to 418-n).

The main control unit 411 controls each of the units, and controls the sale of merchandise and issuing of points. The point information generation unit 412 generates point information based on control signals from the main control unit 411, and the point information generated by this point information generation unit 412 is printed on a prescribed form, for example a sales receipt, by the point information printing unit 413.

The keyboard terminal unit 414 sets various values, such as price, for the merchandise to be sold. The coin processing unit 415 receives coins corresponding to the merchandise price and returns change; the bill processing unit 416 receives paper money and performs related processing. The merchandise conveyor unit 417 dispenses merchandise based on control signals from the main control unit 411, to control dispensation of merchandise stored in the columns 418. The columns 418 store various merchandise items.

This vending machine 1 of this second embodiment differs from the vending machine 1 of the first embodiment only in that point information is printed on a form; otherwise the configuration is similar to that of the vending machine 1 of the first embodiment. Hence a detailed description is omitted. Moreover, simply by substituting "printing" for "display," the display control explained referring to Fig. 6 can be applied to the vending machine of the second embodiment.

Next, a third embodiment of this invention is explained.

Fig. 8 is a block diagram depicting the configuration of a vending machine in a third embodiment of this invention.









Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

The secret code comprises:

1) A point issue number

3) A parity

In other words, if the point issue number of point information received by the data center 653 is identical to a point issue number for point information previously received, it is judged to have been used more than once; and if the point issue number of point information received by the data center 653 is abnormally distant from the point issue number of the preceding point information received as genuine, then it is judged that the point information may possibly have been used illicitly.

The secret code is generated by encrypting the above information using an encryption key, stored in advance.

The basis of the method by which users of this promotion system acquire point information from point issuing devices 611, 621 is the reading of point information displayed on the display units of the point issuing devices 611, 621 and its memorizing on a pad of paper or similar.

The user of the promotion system then inputs this memorized point information into a portable telephone set 630 carried by the user or into a personal computer 640, for transmission, together with an ID (identification information) identifying the user and a prescribed password, to a data center 653, described in detail below (corresponding to the center device 3 shown in Fig. 1).

In order to facilitate the method described above, in this promotion system, an infrared communication device is incorporated into the point issuing devices 611, 621, and using this infrared communication device, input of the above point information into the above portable telephone set 630 or similar is facilitated.

Means for printing and output of the above point information may also be provided in the point issuing devices 611, 621.

The point issuing device 621 of the cash register 620 may also be configured such that point information generated by this point issuing device 621 is printed onto a sales receipt printed and output by the cash register 620.

The data center 653 is realized as a web server on the Internet 650.

In this data center 653 are provided a point database 661 to store and manage, by user ID, points acquired by users; a vendor database 662 to store and manage, by the above module code, the states of vending machines 610 and cash registers 620 and other information; and a user database 663 to store and manage the individual information of users.

Transmission of point information to this data center 653 from a portable telephone set 630 carried by a user is performed via the portable telephone set 630, a mobile communication business 651, and the Internet 650.

Transmission of point information to this data center 653 from a user's personal computer 640 is performed via the personal computer 640, user's Internet access provider 652, and the Internet 650.

When the data center 653 receives point information from the portable telephone set 630 or personal computer 640 of a user, first the user database 663 is referenced to verify the ID and password of the user.

Next, the vendor database 662 is referenced, to verify the module code.

Then, the secret code is decrypted, parity is checked, the point issue number is checked, and the number of points is checked; based on the result of these checks, the point database 661 is updated.

The data center 653 performs the following operations.

- 1) Management of users based on registration in and updating of the user database 663
- 2) Management of points based on the point database 661
- 3) Management of point issuing devices based on registration in and updating of the vendor database 662
- 4) Management of various lotteries and lottery winners based on points stored in the point database 661
- 5) Furnishing of marketing information to managers of vending machines 610 and to stores and other entities provided with cash registers 620

6) Management of the sales information, merchandise, change, malfunctions, and other circumstances of vending machines 610

On the above Internet 650 are also provided network banks 654 which act as agents in settlement of points for the data center 653, and web hosting providers 655 which deliver web pages, in place of the data center 653, in order to furnish marketing information to the managers of vending machines 610 and to stores and other entities provided with cash registers 620.

Next, details of the operation of the above promotion system are explained with reference to the flowcharts shown in Fig. 10 through Fig. 14.

Fig. 10 is a flowchart showing the details of processing of the point issuing devices shown in Fig. 9 (point issuing devices 611 and 621).

In Fig. 10, the point issuing device first checks whether there is a point issue instruction from the vending machine 610 or from the cash register 620 (step 701). If it is judged that there has been no point issue instruction, execution returns to step 701, and a point issue instruction is awaited.

In step 701, if there is a point issue instruction from the vending machine 610 or cash register 620 (YES in step 701), the validity of the number of points of the point issue instruction is checked (step 702). If it is judged that the number of points is invalid (NO in step 702), execution returns to step 701; if it is judged valid (YES in step 702), a point issue number is generated (step 703). Generation of this point issue number is performed by adding 1 to the preceding point issue number.

Next, a parity is generated (step 704). Parity generation is performed by, for example, delimiting the point issue number generated in step 704 and the number of points judged to be

valid in step 702 at every  $n$  bits and adding, then dividing the result by  $m$  to obtain the remainder as the parity.

Then the secret code is generated (step 705). Generation of the secret code is performed by encrypting the above point issue number, number of points, and parity using an encryption key which has been stored in advance.

The secret code generated in this way is displayed (step 706) by the display unit of the point issuing device as point information together with the module code for the point issuing device, and is similarly printed on a sales receipt (step 707).

Next, a timer is reset (step 708) in order to limit the display of point information on the display unit, and a check is performed for the presence in this point issuing device of an infrared device for output of the above point information (step 709).

If it is judged that an infrared device is present (YES in step 709), the above point information (code) is output by infrared beam (step 710).

A check is performed to determine whether time-out of the timer has occurred (step 711), and if time-out has not occurred (NO in step 711), execution returns to step 709; but if it is judged that time-out has occurred (YES in step 711), information display on the display unit is erased (step 712), and processing is terminated.

Fig. 11 is a flowchart showing the processing of a portable telephone set when transmitting to the data center point information, output by infrared beam from a point issuing device, and input using an infrared reception function of the portable telephone set.

In Fig. 11, first a check is performed to determine whether a code, namely point information, is displayed on the point issuing device (step 801). Here if no code is displayed on



the point issuing device (NO in step 801), execution returns to step 801, and display of a code on the point issuing device is awaited.

When a code is displayed on the point issuing device (YES in step 801), the portable telephone set 630 is put into an infrared reception state (step 802).

Then a check is performed to determine whether the portable telephone set 630 has received an infrared beam, that is, whether point information issued by the point issuing device has been input via infrared beam (step 803).

If it is judged that an infrared beam has not been received (NO in step 803), execution returns to step 803, and receipt of point information via infrared beam is awaited. If it is judged that an infrared beam has been received (YES in step 803), the user's ID and password are then input to the portable telephone set (step 804), and the point information is transmitted to the data center 653 (step 805).

Fig. 12 is a flowchart showing the processing of a portable telephone set 630 when transmitting to the data center point information, displayed on the display of a point issuing device, and input to the portable telephone set 630.

In Fig. 12, first a check is performed to determine whether a code, namely point information, is displayed on the point issuing device (step 811). Here if no code is displayed on the point issuing device (NO in step 811), execution returns to step 811, and display of a code on the point issuing device is awaited.

When a code is displayed on the point issuing device (YES in step 811), the user of the portable telephone set 630 views the display and inputs to the portable telephone set 630 the code, that is, the point information displayed on the display unit of the point issuing device (step 812).

Then, the ID and password of the user are input to the portable telephone set (step 813), and the point information is transmitted to the data center 653 (step 814).

Fig. 13 is a flowchart showing the processing of a personal computer 640 when inputting to a personal computer 640 point information, based on information printed on a sales receipt output from a point issuing device, for transmission to the data center.

In Fig. 13, first a check is performed to determine whether there is printed output on a sales receipt with point information printed by a point issuing device (step 821). If there is no printed output on a sales receipt from a point issuing device (NO in step 821), execution returns to step 821, and printed output on a sales receipt from a point issuing device is awaited.

When there is printed output on a sales receipt with point information printed (YES in step 821), the user of this system receives the sales receipt, and later the user reads the sales receipt and inputs into the personal computer 640 the code, that is, the point information displayed on the display unit of the point issuing device (step 822).

Then the user inputs the user's ID and password into the personal computer 640 (step 813), and transmits the point information to the data center 653 (step 814).

Fig. 14 is a flowchart showing processing at the data center 653 after receiving the above point information.

In Fig. 14, the data center 653 checks the user ID and password transmitted together with the above point information (step 901). This check of the user ID and password is performed by referencing the user database 663, to verify that the user ID has been registered, that the password is correct, that the user ID is not registered in a negative list, and by similar actions.

If it is judged that the user ID and password are normal, next a check of the module code comprised by the point information is performed (step 902). This check of the module code is performed by referencing the vendor database 662, to verify that the module code exists and that it is not registered in a negative list.

If the module code is judged to be normal, then decryption of the secret code comprised by the point information is performed (step 903).

When decryption of the secret code is completed, a check is performed using the parity (step 904).

If the parity is normal, then the point issue number is checked (step 905). This check of the point issue number is performed by verifying that the number has not been used more than once, and that the number is not greatly distant from the point issue number issued immediately before by the same module. If the point issue number is greatly distant from the point issue number issued immediately before by the same module, there is the possibility of misuse.

As a result of the check of the point issue number of step 905, if the number is judged to be normal, next the number of points is checked (step 906). This check of the number of points may be performed by, for instance, verifying that the number of points does not exceed some upper limit.

If as a result of the check of the number of points, the number of points is judged to be normal, next the current time is acquired (step 907), adjustment of the number of points is performed (step 908), the adjusted information is recorded in the point database 661 (step 909), and processing is terminated.

In step 901, if there is judged to be an abnormality in the user ID or password, or if, in step 902, there is judged to be an abnormality in the module code, or if, in step 904, there is judged to be an abnormality in the parity, or if, in step 905, there is judged to be an abnormality in the point issue number, or if, in step 906, there is judged to be an abnormality in the number of points, abnormal termination occurs.

Next, a fourth embodiment of this invention is explained.

Fig. 15 is a diagram depicting one example of a point seal used in a fourth embodiment of this invention, and Fig. 16 is a diagram showing in summary the configuration of the promotion system in this fourth embodiment.

In Fig. 15, points 71 appropriate to the merchandise and point information 72 generated in relation to the points 71 are printed on the point seal 7; the point information 72 is covered with scratch-off ink 73, such that it is not easily seen by the purchaser.

As shown in Fig. 16, the purchaser either collects point seals 7 for more than a prescribed number of points, affixes them to a prescribed base 8 and mails them to the center device 3, or else the purchaser removes the scratch-off ink 73 from the point seal 7 to acquire the point information 72, and uses a portable telephone set 2 to transmit this point information 72 to the center device 3 to accumulate points and receive a service corresponding to the points accumulated.

However, when point seals 7 are mailed to the center device 3, any point seals 7 with the scratch-off ink removed are processed as invalid.

Hence if the purchaser wishes to transmit the points 72 to the center device 3 using a portable telephone set 2, the scratch-off ink must be removed; but even if point seals 7 with the scratch-off ink 73 removed are mailed, they are processed as invalid, and so it is possible

to reliably prevent the duplicate use of point information 72 both by transmission using communication equipment and by mailing point seals 7.

In addition to the portable telephone set 2, point information can also be transmitted using a personal computer or other communication equipment.

What Is Claimed Is:

1. A promotion method, in which merchandise sales are promoted by issuing points upon sale of merchandise; wherein

point information related to prescribed points is presented to a user at a time of merchandise sales;

said user transmits to a center device said presented point information, together with identification information for said user;

said center device stores and manages points corresponding to said transmitted point information for said user; and,

a prescribed service is offered to said user based on the points stored and managed in correspondence to said user.

2. The promotion method according to claim 1, wherein

the presentation of said point information is performed by a point issuing device.

3. The promotion method according to claim 2, wherein

said point information comprises a module code related to said point issuing device and a secret code related to said points, and

among said module code and said secret code, at least the secret code is encrypted before presentation to said user.

4. The promotion method according to claim 2, wherein

the presentation of said point information is performed by displaying said point information on a display unit connected to said point issuing device.

5. The promotion method according to claim 2, wherein  
the presentation of said point information is performed by printing out said point  
information on a prescribed form from said point issuing device.

6. The promotion method according to claim 2, wherein  
the presentation of said point information is performed by inputting said point  
information to a communication equipment of said user, by means of communication between  
said point issuing device and said communication equipment.

7. The promotion method according to claim 6, wherein  
said communication equipment comprises a portable telephone set carried by said user,  
and  
input of said point information to said communication equipment is performed using  
any of wire communication, wireless communication, infrared communication, and audio  
communication between said point issuing device and said portable telephone set.

8. The promotion method according to claim 3, wherein  
said secret code comprises at least a point issue number, and  
said center device judges duplicate use of the point information based on said point  
issue number.

9. The promotion method according to claim 2, wherein  
said module code comprises code information to identify said point issuing device, and  
said center device manages a state of at least one of said point issuing device and the  
equipment performing sales of said merchandise in which said point issuing device is provided,  
based on said module code.

10. The promotion method according to claim 1, wherein

the presentation of said point information is performed by attaching in advance, to said merchandise, a printed matter on which is printed in advance said point information.

12. The promotion method according to claim 11, wherein

the user acquires said printed matter upon purchasing said merchandise;

concealing member from said printed matter, or transmits to the center device said point information acquired from the printed matter by removing said concealing member from said printed matter;

said center device performs processing for addition of points based on either said point information or said points printed on the printed matter which has been mailed without removing said concealing member therefrom; and,

a prescribed service is offered to said user based on the points resulting from said addition processing.

13. The promotion method according to claim 12, wherein

14. The promotion method according to claim 1, wherein







23. The promotion system according to claim 17, wherein

said center device comprises an equipment database to store and manage a state of at least one of said point issuing means and the equipment performing sales of said merchandise in which said point issuing means is provided, in correspondence with said module code.

24. The promotion system according to claim 16, wherein

said center device comprises a user database to store and manage circumstances of use of the system by said user, in correspondence with the identification information for the user transmitted by the user.

25. The promotion system according to claim 16, wherein

said center device comprises accessing means which enables said user to access the point information stored and managed for the user, in response to a request from the user.

### ABSTRACT OF THE DISCLOSURE

Upon the sale of merchandise by a vending machine, encrypted point information expressing prescribed points is presented to a user. The user transmits the presented point information, together with identification information for the user, to a center device by means of the user's portable telephone set. The center device decrypts the transmitted and encrypted point information, stores and manages points corresponding to the point information for the user, and offers s prescribed service to the user based on the points stored and managed for the user.

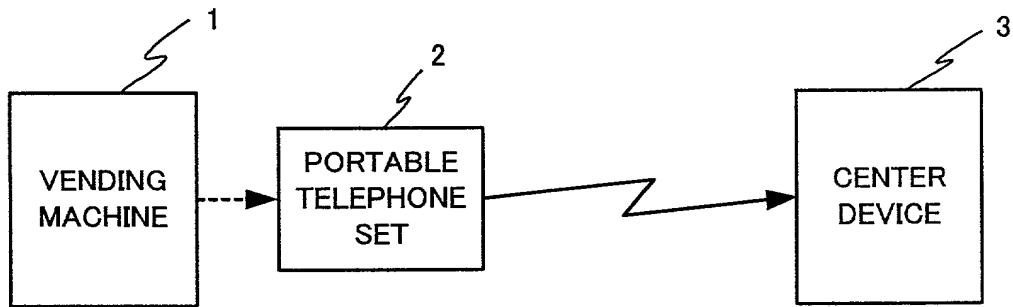


FIG.1

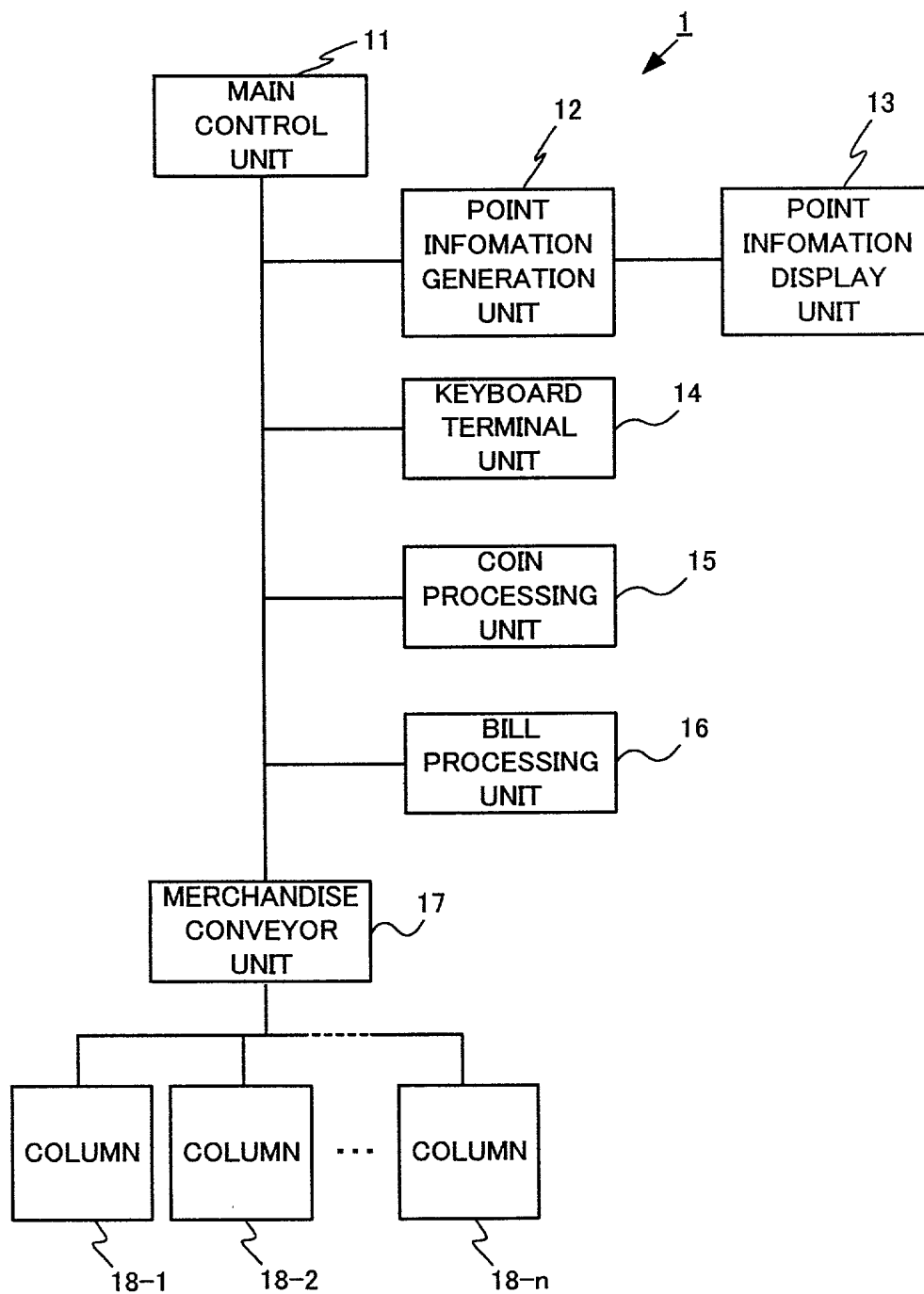


FIG.2

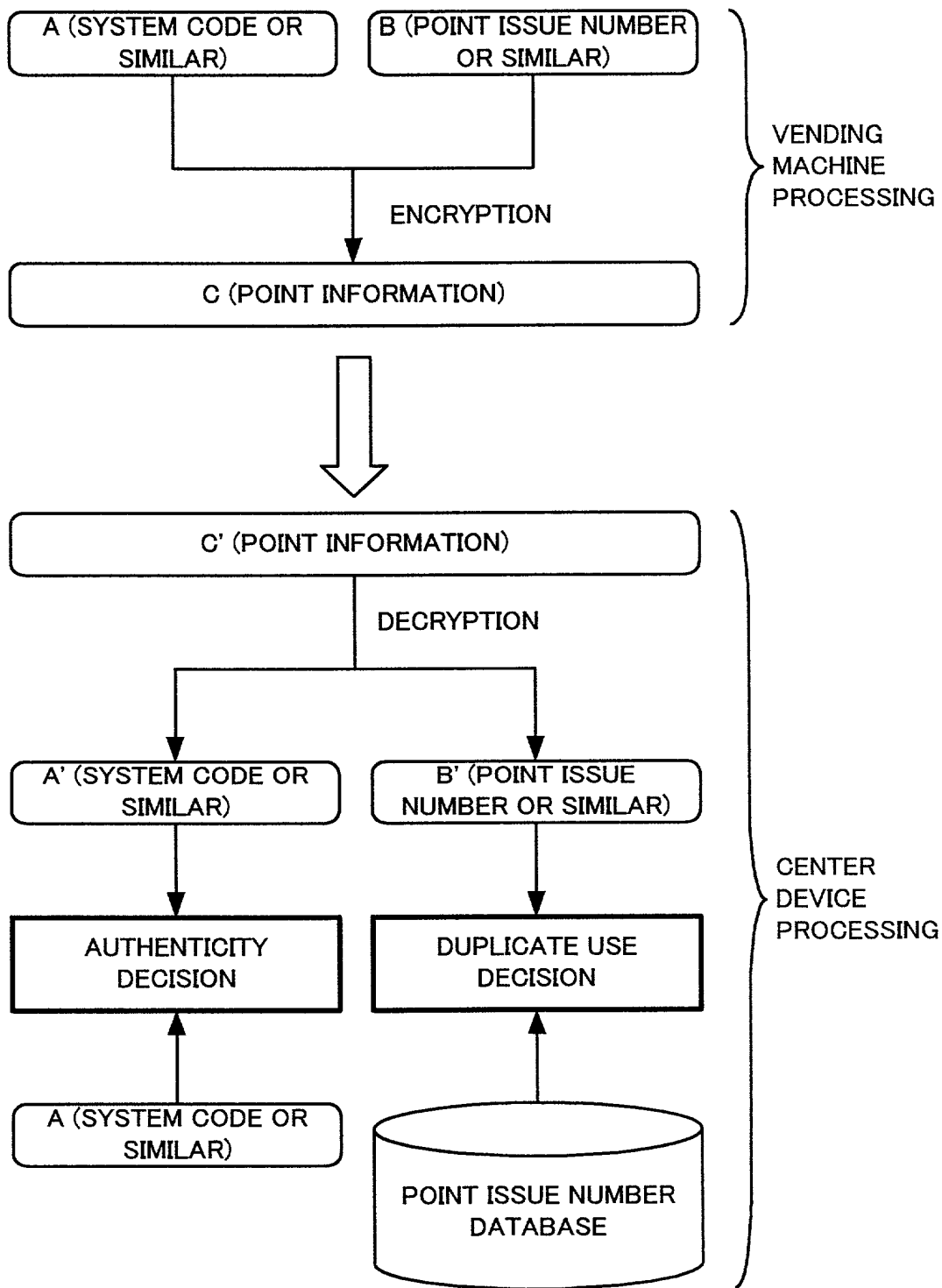


FIG.3

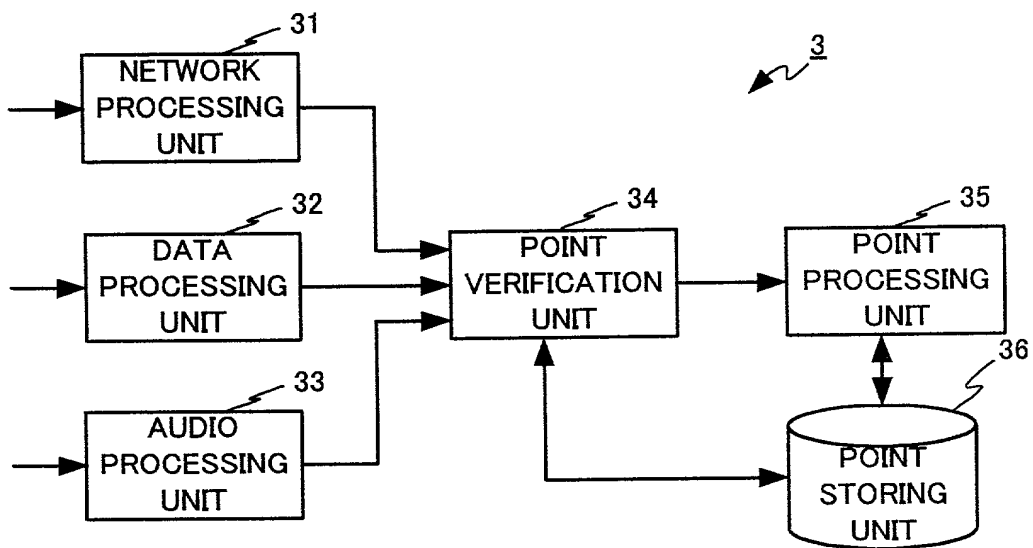


FIG.4



```
graph TD; START([START]) --> 101{DOES REGISTRATION NAME EXIST?}; 101 -- NO --> 105[ERROR PROCESSING]; 101 -- YES --> 102{IS POINT GENUINE?}; 102 -- NO --> 105; 102 -- YES --> 103{ARE POINTS UNUSED?}; 103 -- NO --> 105; 103 -- YES --> 104[ADD POINT FOR REGISTRATION NAME]; 104 --> END([END]); 105 --> END;
```

**FIG.5**

```

graph TD
    START([START]) --> 201[DISABLE DISPLAY UNIT]
    201 --> 202{RETURN SIGNAL RECEIVED?}
    202 -- NO --> 202
    202 -- YES --> 203[ENABLE DISPLAY UNIT]
    203 --> 204[SET TIMER]
    204 --> 205{CASH INSERTED?}
    205 -- YES --> 207{RETURN SIGNAL RECEIVED?}
    205 -- NO --> 206{TIME-OUT?}
    206 -- YES --> 204
    206 -- NO --> 202
    207 -- YES --> 202
    207 -- NO --> 208{CASH COLLECTION SIGNAL RECEIVED?}
    208 -- YES --> 209[DISPLAY POINT INFORMATION]
    209 --> 210[SET TIMER]
    210 --> 211{RETURN SIGNAL RECEIVED?}
    211 -- YES --> 207
    211 -- NO --> 212{TIME-OUT?}
    212 -- YES --> 210
    212 -- NO --> 208

```

**FIG.6**



```

graph TD
    1[1] --- 11[11: MAIN CONTROL UNIT]
    11 --- 12[12: POINT INFORMATION GENERATION UNIT]
    11 --- 14[14: KEYBOARD TERMINAL UNIT]
    11 --- 15[15: COIN PROCESSING UNIT]
    11 --- 16[16: BILL PROCESSING UNIT]
    11 --- 17[17: MERCHANDISE CONVEYOR UNIT]
    12 --- 13[13: POINT INFORMATION TRANSMISSION UNIT]
    13 --- 2[2: MOBILE PHONE]
    17 --- 518_1[518-1: COLUMN]
    17 --- 518_2[518-2: COLUMN]
    17 --- 518_n[518-n: COLUMN]

```

**FIG.8**

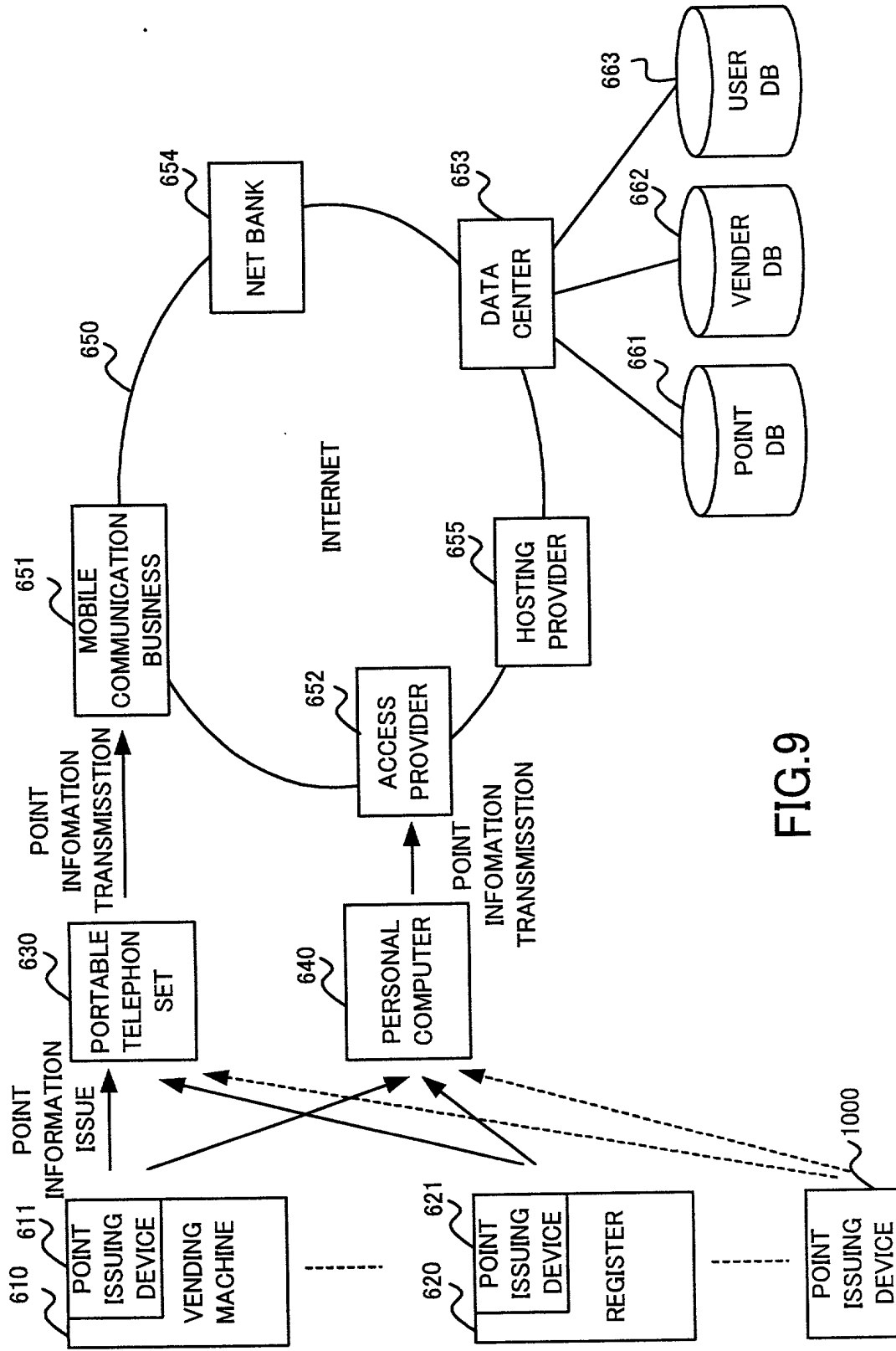


FIG.9

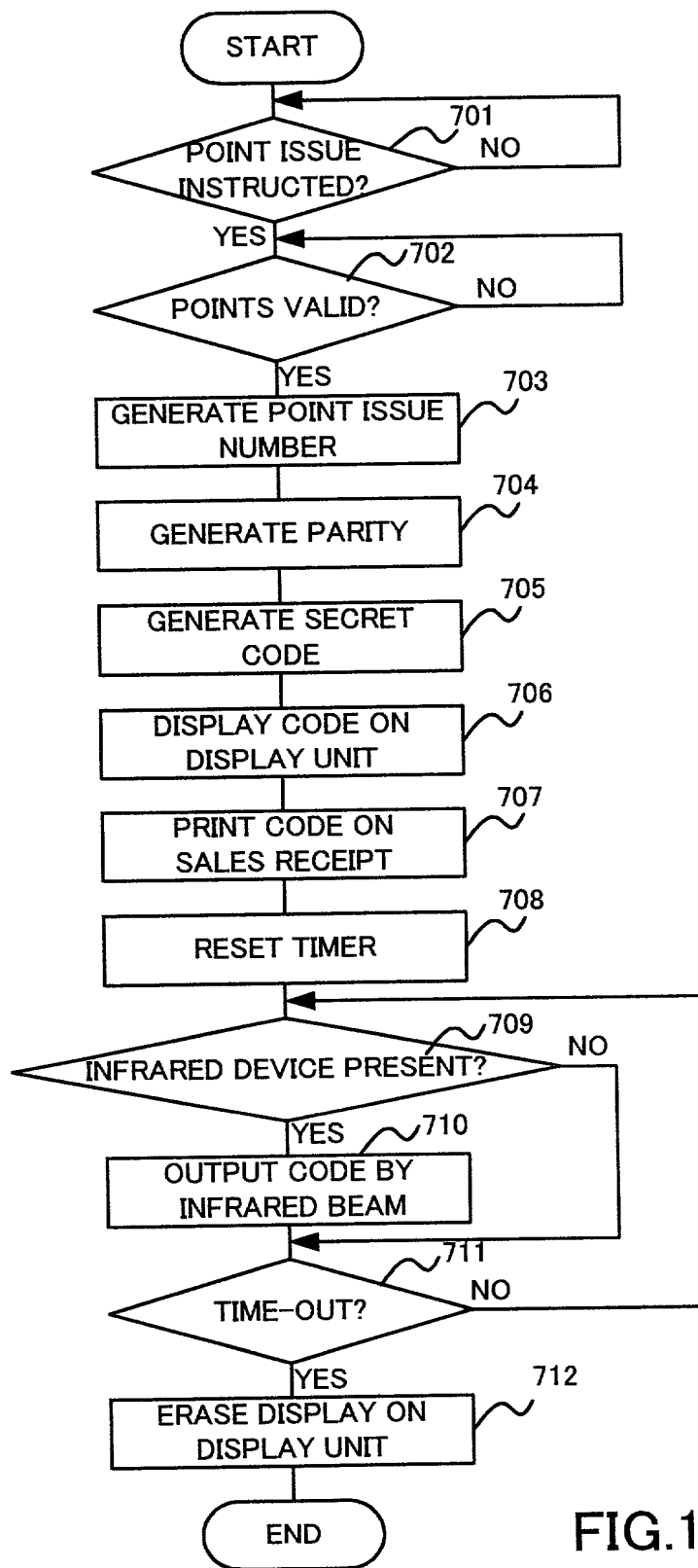


FIG.10

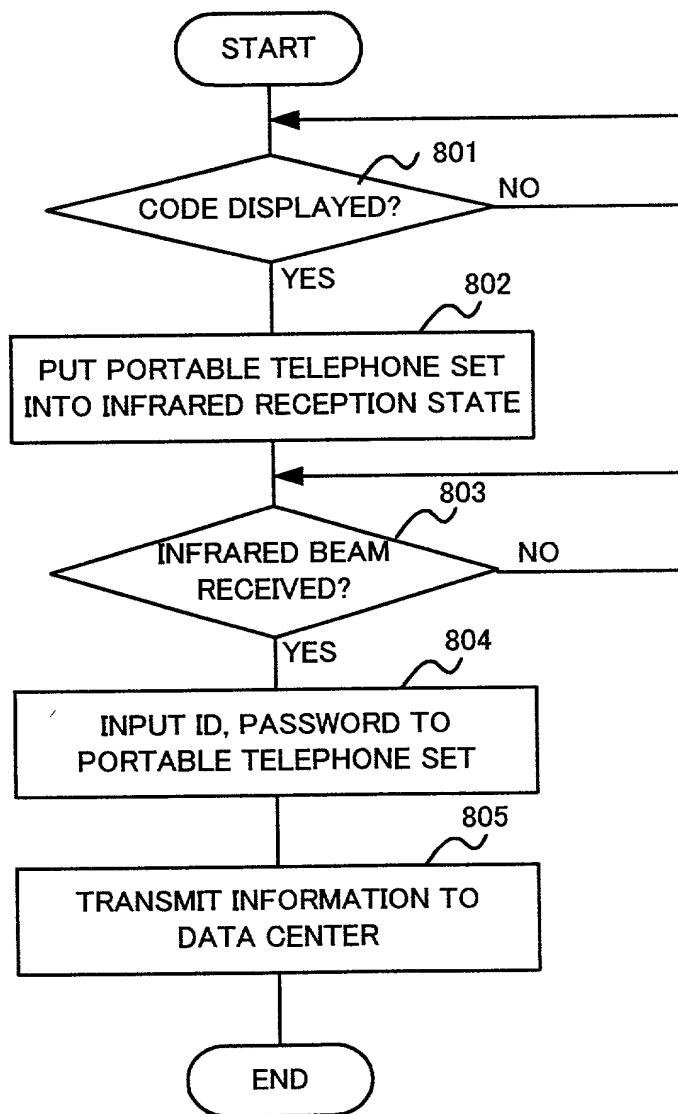
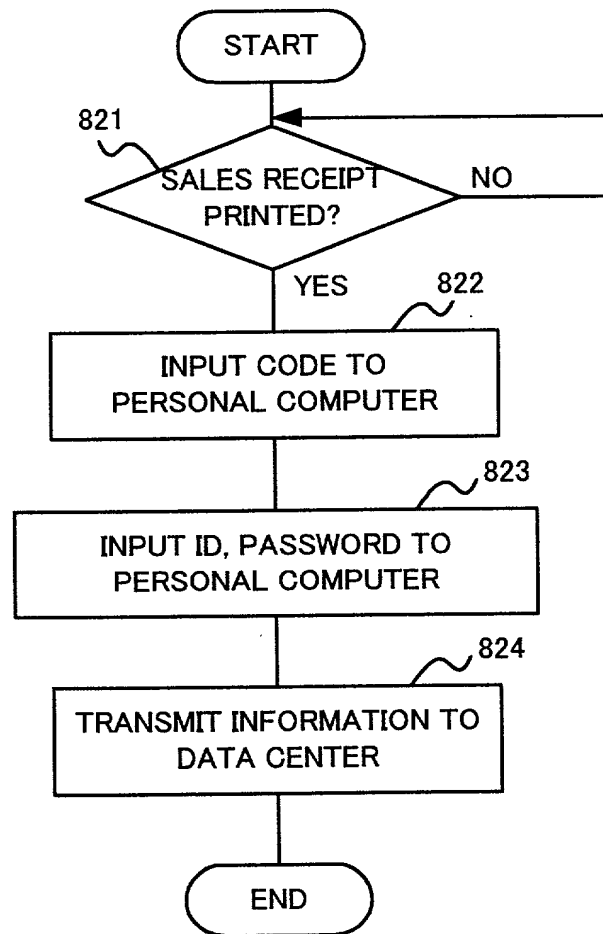


FIG.11







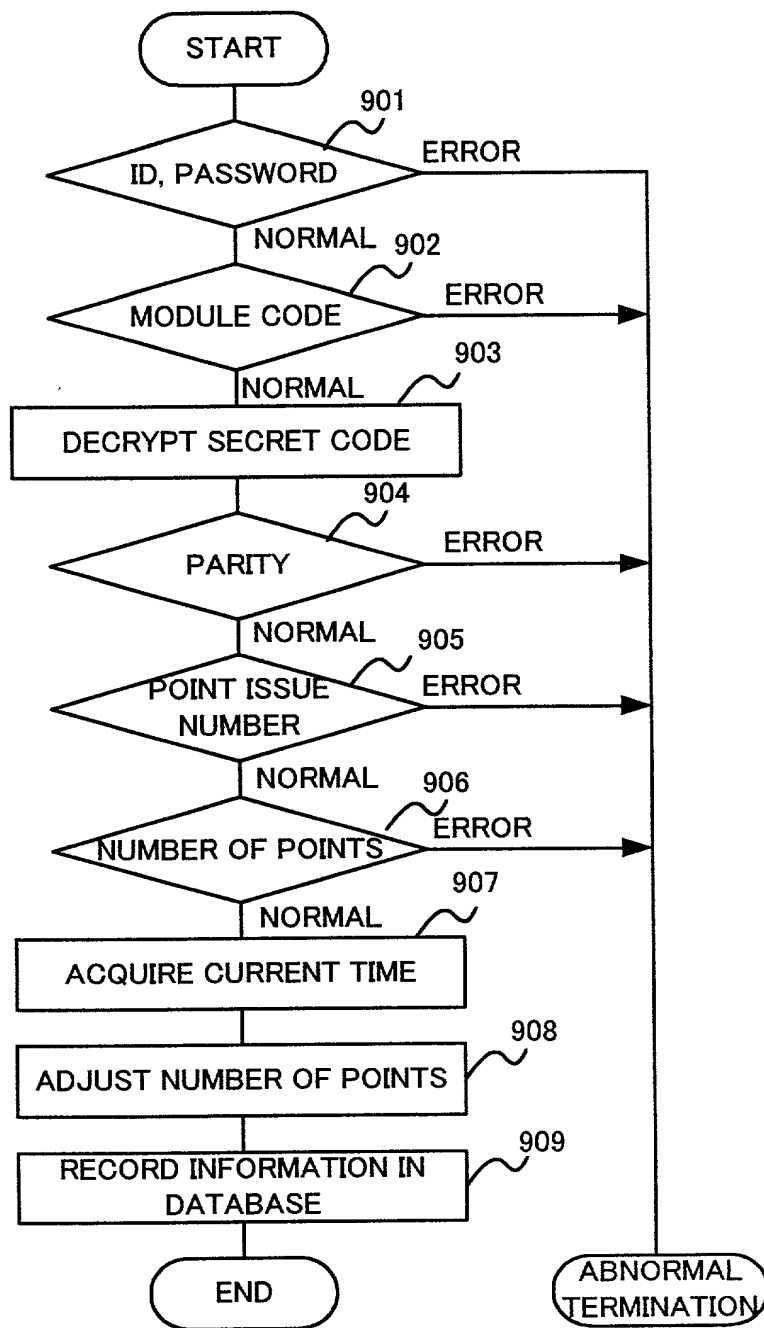


FIG.14

Figure 1 is a schematic diagram of a point cloud data structure. It shows a large rectangle (71) containing a smaller rectangle (72) labeled "1 POINT". Below the rectangle, a shaded area (73) is labeled "245".

FIG.15

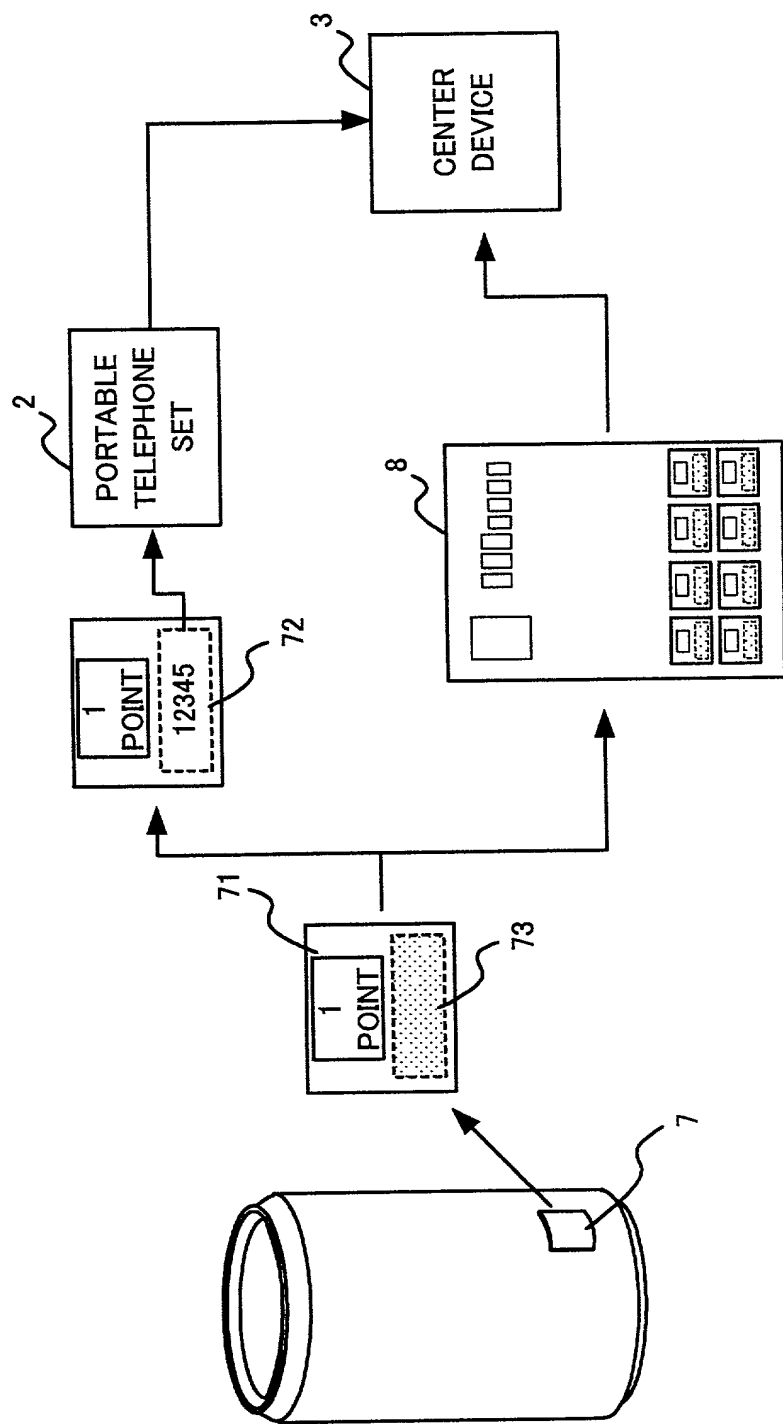


FIG. 16

## DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare:

That my residence, post office address and citizenship are as stated below next to my name.

That I verily believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: PROMOTION METHOD AND SYSTEM  
the specification of which (check one)

☒ is attached hereto.

☐ was filed on \_\_\_\_\_ as Application, Serial No. \_\_\_\_\_ and was amended on \_\_\_\_\_  
(if applicable).

That I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

That I acknowledge the duty to disclose information known to be material to patentability of this application in accordance with Title 37, Code of Federal Regulations §1.56(a).

That I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate on this invention having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)

Priority Claimed

280034/1999      Japan      30/9/1999  
(Number)      (Country)      (Day/Month/Year Filed)

☒   ☐  
Yes   No

210217/2000      Japan      11/7/2000  
(Number)      (Country)      (Day/Month/Year Filed)

☒   ☐  
Yes   No

That I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

United States Application(s)

\_\_\_\_\_  
(Application Serial No.)      (Filing Date)      (Status)-(Patented, pending, abandoned)

\_\_\_\_\_  
(Application Serial No.)      (Filing Date)      (Status)-(Patented, pending, abandoned)

That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

I hereby appoint the following attorneys, with full power of substitution and revocation, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith and request that all correspondence and telephone calls in respect to this application be directed to: WELSH & KATZ, LTD., 120 South Riverside Plaza, 22nd Floor, Chicago, Illinois 60606-3913, Telephone No.: (312) 655-1500:

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I hereby authorize the U.S. attorney or agent named herein to accept and follow instructions from T. KIMURA PATENT OFFICE (Insert Foreign Associate) as to any action to be taken in the Patent and Trademark Office regarding this application without direct communication between the U.S. attorney or agent and the undersigned. In the event of a change in the persons from whom instructions may be taken, I will so notify the U.S. attorney or agent named herein.

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